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November 16, 2004

Re: Granville Solvents
Ohio ID: 145-0353
Licking County

Kevin Adler
U.S. EPA Region 5
Office of Superfund
Remedial and Enforcement Response Branch
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Dear Mr. Adler:

Thank you for giving the Ohio Environmental Protection Agency (Ohio EPA) the opportunity to comment on the "Proposal to Suspend Groundwater and Soil Treatment System Operation" (Proposal) at the Granville Solvents, Inc. site (GSI).

Ohio EPA agrees with the Granville Solvents Site Management Group, LLC (Group) that considerable progress has been made at GSI over the past 10 years, and that the Group has substantively complied with the Administrative Order on Consent. The data indicates that the ground water and soil are much cleaner now and the Granville well field is currently protected. Based on our review of the data, the soil and ground water treatment systems continue to remove volatile organic compounds (VOCs), but the removal rate is fairly flat, which indicates low effectiveness. Therefore, Ohio EPA does not object to shutting the treatment systems down to evaluate hydrogeologic conditions and potential contaminant rebound. We do have some concerns and comments on some technical and administrative aspects of the Proposal, however. Our comments are listed below:

1. **Section 2.2, Groundwater Quality:** The Proposal states that cis 1,2 dichloroethene (cis 1,2 DCE) was detected at MW-8 at a concentration of 48 ug/L, and that chemicals of concern were not detected at GSS-MW8, GSS-MW9, GSS-MW10, and GSS-MW14. The fact that cis 1,2 DCE was not detected in those wells may be related to monitor well screen elevations, rather than not being there. Our review of the data indicates that cis 1,2 DCE is detected only in wells that are screened at or above the potentiometric ground water surface (895-900 feet above mean sea level). The well screen interval at

MW-8 is from 888-898 feet above mean sea level, whereas, the well screen intervals at GSS-MW8, GSS-MW9, GSS-MW10, and GSS-MW-14 are approximately 880-890 feet above mean sea level or 5-10 feet below the potentiometric surface. Also, cis 1,2 DCE has not been detected in MW-8D, which is nested with MW-8, but is screened approximately 15 feet lower than MW-8. Apparently, the cis 1,2 DCE plume, as it is mapped, occurs at the top of the aquifer or capillary fringe.

2. **Section 2.3, Source Area Soils:** The Proposal states that the soil treatment goals for chemicals of concern were determined based on a point of compliance that is 450 feet west of GSI property. This allows volatiie organic compound (VOC) leaching from soil to ground water at the source. If contamination left in the soil is contributing to the pollution of the ground water, then there is a potential violation of Ohio Revised Code Section 6111.04.

3. **Section 2.4, Response Action Objectives:** The "no further action" levels are based on the assumption of future industrial/commercial land use and a point of compliance 450 feet west of the property boundary. The remaining soil and ground water contamination may not meet unrestricted land use standards at the GSI property or other nearby properties where the contaminant plume has migrated. We would like clarification from U.S. EPA if the Agency will require additional remedial actions to ensure protection of human health. And, if U.S. EPA is willing to accept a cleanup to industrial/commercial standards, Ohio EPA would like to know how the use restriction will be implemented, monitored and enforced.

4. **Section 2.5.1, Current Site Conditions, Groundwater, Page 6:** VOCs are detected only in wells that were installed by Ohio EPA (labeled "MW"). None of the wells installed by the Group (labeled "GSS-MW") had VOC detections. As in the case of cis 1,2 DCE (see comment 1), this appears to be related to the elevation of the screened interval. That is, the screens in the MW wells, which had detections of VOCs, straddle the potentiometric surface; however, the screens in the GSS-MW wells appear to have been installed below the potentiometric surface. We believe that the Proposal should further evaluate current ground water conditions and explain why VOCs are currently detected only in the "MW" wells.

5. **Section 2.5.2, Source Area Soils, Page 9:** The Proposal states that the residual mass of VOCs in the soil is likely to be below cleanup goals. The Proposal based this claim on the calculated mass of VOCs removed from the soil treatment system by off-gas monitoring plus a drop in the VOC removal rate. Ohio EPA's opinion is that the mass of VOCs removed using off-gas data is a subjective assessment and is not necessarily indicative of the mass of VOCs left in soil. We do not believe that this method alone is an adequate demonstration of compliance with soil cleanup objectives.

6. **Section 3.1.2, Post-Shutdown Monitoring, Page 11:** The top of the screen at the proposed compliance well, GSS-MW-15, should be screened at a depth that correlates with those monitoring wells where VOCs are currently being detected. That is, the well screen should straddle the potentiometric surface, which is approximately 900 feet above mean sea level (see comments 1 and 4 above).

7. **Section 3.1.2, Post-Shutdown Monitoring, Groundwater, Page 11 and Section 4.0, Post-Shutdown Data Evaluation and Documentation:** The Proposal states that the Group will monitor ground water for three years after the system is shut down. It is Ohio EPA's position that a minimum of five years of post-shutdown monitoring is warranted in order to be consistent with the National Contingency Plan. Also, if the system is shut down permanently and no further active remediation is required, then the remaining contamination will presumably be allowed to naturally attenuate. In this case, Ohio EPA believes that the Group should implement a long-term monitored natural attenuation program in accordance with U.S. EPA guidance.

8. **Section 3.2, Soil Response Action and Section 3.2.1, Suspension of Soil Treatment System Operation:** (1) The Proposal states, "collected data demonstrates that soil treatment goals have been achieved." This statement is based on an estimate of mass removed by "summa canister data" from the soil treatment system. Ohio EPA does not agree that there is a direct relationship between the vapor concentration and the mass of contamination that remains in the subsurface soil. The Proposal also further justifies achievement of soil treatment goals by stating that the rate of VOC removal has dropped to 6% of the initial rate. There are other factors that could contribute to the drop in vapor concentrations that are unrelated to the mass of VOCs that remain in the soil.

9. **Section 3.2.1, Suspension of Soil Treatment System Operation:** The Proposal states that a total of four soil samples will be collected to verify compliance with soil cleanup goals. Currently, with the information provided, we have no way of knowing if four soil samples will adequately verify compliance with soil cleanup goals. A more comprehensive post-remedial soil assessment is needed instead of relying on any one particular measurement. The number, location, depths, and types of soil samples that need to be collected should be based on data needs identified in the assessment. Factors that need to be considered are site geology, current contaminant characterization, soil treatment system design, soil treatment performance data, and a mass flux assessment to and from ground water.

10. **Section 4.0, Post-Shutdown Data Evaluation and Documentation:** Ohio EPA requests water level data and ground water quality data be submitted to us when that data is available so that we can remain current regarding ground water hydrology and contaminant plume concentration and migration. In addition, if ground water contamination is allowed to remain above MCLs, a long-term monitored natural attenuation program should be developed (see Comment #7).

11. **Section 5.0, Contingency Plan:** The Proposal states that a contingency plan will be developed and provided to U.S. EPA if the post-shutdown analysis indicates contaminant levels will be exceeded at GSS-EW1. Ohio EPA believes that a contingency plan or a contingency process should be developed and submitted prior to shut down. Our principle reason for this is that a contingency plan will provide assurances that the soil treatment system and ground water extraction systems will be properly maintained to facilitate rapid restart should the Group or the regulatory agencies decide that further treatment of the soil and water is needed. A continency plan will also further define the performance standards and the specific mechanism(s) that will trigger a contingency. A plan will also provide a process and schedule for implementation.

If you have any questions, please contact me at (614) 728-3830.

Sincerely,

Fred Myers
Division of Emergency and Remedial Response
Central District Office

FM/pan gsi_shutdown_com_11-04_2

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